

**REMARKS**

In the present Office Action mailed February 1, 2007, claims 1-20 were pending before the Office. Of these, claims 1, 11, 21, and 22 were the only independent claims. The Examiner objected to claim 2 and rejected Claims 1 to 24 under 35 U.S.C. §101. Claims 1-3, 7-8, 11-13, 17-19, and 21-24 are also rejected under 35 U.S.C. §103(a).

Claims 1, 2, 11, 21, and 22 have been amended herein. No claims have been added, canceled, or withdrawn.

**A. OBJECTION TO THE CLAIMS FOR INFORMALITIES**

The Office Action indicates that Claim 2 is objected to because it is missing a period or a dot(.) at the end of the claim. Claim 2 has been amended. Applicants respectfully request reconsideration and withdrawal of the objection to claim 2.

**B. REJECTION OF CLAIMS UNDER 35 U.S.C. §101**

Claims 1-24 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claims 1-24 recite a method and apparatus of determining the interval of which the sum of two numbers reside according to a mathematical algorithm. In part, the Examiner appears to assert that claims 1-24 recite a method and apparatus of determining the interval of which the sum of two numbers resides according to a mathematical algorithm and merely disclose steps of determining the interval in hardware without disclosing the practical

application or tangible result. For reasons explained below, Applicants traverse these rejections.

Applicants first respectfully submit that at least “providing **fewer than n** compress circuits” is a concrete and tangible result. Applicants note that the claims recite ‘n intervals’. The detailed description of the present application notes in discussing an exemplary embodiment of the present invention that “when more than two ranges/intervals must be checked, the inventive value range check logic 300 may identify an interval in which an integer value resides without requiring separate compress circuits (e.g., adder logic) for each interval.” (Page 8, lines 27-31).

Applicants further note that the detailed description of the present application makes clear that providing fewer than n compress circuits is a concrete and tangible result. In describing the admitted prior art, the detailed description notes that “[w]hile effective at identifying an interval in which an addend or other integer value resides, the conventional value range check circuit 200 **requires a separate compare circuit (e.g., single range check circuit 202a-d) for each interval.** As stated, requiring a separate compare circuit for each interval is expensive and consumes device real estate. A less hardware intensive solution would be desirable.” (Page 6, lines 3 to 10). Accordingly, Applicants assert that providing **fewer than n** compress circuits is a concrete and tangible result.

Accordingly, Applicants assert that the independent claims 1, 11, 21, and 22 are allowable under 35 U.S.C. §101 for the above reasons. Nevertheless, Applicants have amended the independent claims with explicit language that n is representative of the tangible number of intervals. Accordingly, Applicants respectfully submit that providing fewer

than n compress circuits where n is the number of intervals is a concrete and tangible result.

**C. REJECTION OF CLAIMS UNDER 35 U.S.C. §103**

Claims 1-3, 7-8, 11-13, 17-19, and 21-24 are rejected under 35 U.S.C. 103(a) as being obvious over the admitted prior art in view of United States Patent No. 5,550,767 (Taborn et al). Applicants respectfully submit that the independent claims are allowable under 35 U.S.C. §103 over Taborn et al. and thus, respectfully traverse the Examiner's Section 103 rejection.

**1. The adder 25 of Taborn is different than the compress circuit of the present invention**

The Office Action alleges that the adder 25 in the Taborn et al. reference is the same as or equivalent to the compress circuit recited in the claims. Applicants note that the compress circuit of the present invention is adapted to "compress the two or more numbers and the range information into **two or more outputs**". (emphasis is added). In contrast to such features, Applicants submit that the adder 25 of the Taborn et al. reference appears to only have **a single output**. For at least the above reason, Applicants respectfully submit that the adder 25 is not the same as or equivalent to the compress circuit of the present application.

**2. The combination is not obvious**

In addition to the above distinction, Applicants also submit that the Examiner's combination of the admitted prior art and Taborn et al. would not have been obvious because one of ordinary skill would not have been motivated to make the Examiner's combination. The Examiner incorrectly asserts that combining the adder 25 (alleged compress circuit) and the

admitted prior art would have been obvious based on the asserted motivation that the Examiner's proposed modification would allegedly reduce the circuitry. Applicants respectfully disagree.

Applicants submit that the adder 25 of the Taborn et al. reference does not appear to be operative to "compress the two or more numbers and the range information into two or more outputs". (See Applicants' independent claim 1). In further contrast to Applicants' claimed features, the adder 25 of Taborn does not appear to have two or more outputs as Applicants have herein noted above. The Office Action incorrectly asserts that combining the adder 25 and the admitted prior art would allegedly reduce the circuitry. Applicants submit that, for at least the reasons that the adder 25 does not appear to be the same as or equivalent to the compress circuit, the modification would require additional circuitry and therefore would not have been obvious. Applicants also submit that there does not appear to be any suggestion in the Taborn et al., the admitted prior art, or any reasoning in the Office Action regarding how the adder 25 would be modified to have two or more outputs much less how the modified adder 25 would be modified using less circuitry, particularly to include the other recited claim features.

Accordingly, Applicants assert that for at least the above reasons the combination of the Taborn et al. and the admitted prior art is not obvious to one of ordinary skill in the art. Since the independent claims 1, 11, 21, and 22 recite the above discussed limitations, Applicants assert that all of the independent claims are allowable over the relied upon references for at least the above discussed reasons.

**D. CONCLUSION**

Since the Applicants assert that all the independent claims as amended are in condition for allowance and all remaining claims properly depend from the independent claims, Applicants assert that all claims are allowable.

A separate Request for Extension of Time is enclosed herewith, with authorization to charge the requisite extension fee to Deposit Account No. 04-1696. Applicants do not believe any other Request for Extension of Time is required but if it is, please accept this paragraph as a Request for Extension of Time and authorization to charge the requisite extension fee to Deposit Account No. 04-1696. Applicants do not believe any additional fees are due regarding this Amendment. However, if any additional fees are required, please charge Deposit Account No. 04-1696.

Respectfully Submitted,



Steven M. Santisi  
Registration No. 40,157  
Dugan & Dugan, PC  
Attorneys for Applicants  
(914) 332-9081

Dated: July 2, 2007  
Tarrytown, New York